

STATEMENT OF BASIS

as required by LAC 33:IX.3109 for LPDES facilities where a fact sheet is not required under LAC 33:IX.3311, for draft **Louisiana Pollutant Discharge Elimination System Permit No. LA0123439; AI 147233; PER20070001** to discharge to waters of the State of Louisiana as per LAC 33:IX.2311.

The **permitting authority** for the Louisiana Pollutant Discharge Elimination System (LPDES) is:

Louisiana Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

- I. **THE APPLICANT IS:** Mo-Dad Utilities, LLC
 Livingston Trace Subdivision
 P.O. Box 790
 Denham Springs, LA 70726

- II. **PREPARED BY:** Angela Marse

- DATE PREPARED:** February 20, 2008

- III. **PERMIT ACTION:** Issue LPDES permit LA0123439, AI 147233; PER20070001

- LPDES application received: July 27, 2007

IV. **FACILITY INFORMATION:**

- A. The application is for the discharge of treated sanitary wastewater from a privately owned treatment works serving the Livingston Trace Subdivision.

- B. The permit application does not indicate the receipt of industrial wastewater.

- C. The facility is located on John L. Lane, off of Juban Road in Denham Springs, Livingston Parish.

- D. The treatment facility consists of an 80,000 GPD extended aeration treatment plant with hypochlorination.

- E. **Outfall 001**
 - Discharge Location: Latitude 30° 26' 36" North
 Longitude 90° 54' 07" West

 - Description: treated sanitary wastewater

 - Expected Flow: 191 homes x 400 gallons/day/home = 0.0764 MGD

 - Calculations for gallons per day were based upon figures obtained from Chapter 15 of the State of Louisiana Sanitary Code, Department of Health and Hospitals, Office of Public Health.

V. **RECEIVING WATERS:**

The discharge is into parish drainage, thence into West Colyell Creek in segment 040305 of the Lake Pontchartrain Basin. This segment is listed on the 303(d) list of impaired waterbodies.

The designated uses and degree of support for Segment 040305 of the Lake Pontchartrain Basin are as indicated in the table below^{1/}:

Mo-Dad Utilities, LLC
 Livingston Trace Subdivision
 LA0123439; AI 147233; PER20070001
 Page 2

Overall Degree of Support for Segment 040305	Degree of Support of Each Use						
	Primary Contact Recreation	Secondary Contact Recreation	Propagation of Fish & Wildlife	Outstanding Natural Resource Water	Drinking Water Supply	Shell fish Propagation	Agriculture
	Not Supported	Full	Not Supported	N/A	N/A	N/A	N/A

^{1/}The designated uses and degree of support for Segment 040305 of the Lake Pontchartrain Basin are as indicated in LAC 33:IX.1123.C.3, Table (3) and the 2004 Water Quality Management Plan, Water Quality Inventory Integrated Report, Appendix A, respectively.

Section 303 (d) of the Clean Water Act as amended by the Water Quality Act of 1987, and EPA's regulations at 40 CFR 130 require that each state identify those waters within its boundaries not meeting water quality standards. The Clean Water Act further requires states to implement plans to address impairments. LDEQ is developing Total Maximum Daily Loadings Studies (TMDLs) to address impaired waterbodies. Segment 040305 of the Lake Pontchartrain Basin is on the 2004 Integrated 303(d) List of Impaired Waterbodies. The suspected causes of impairment are mercury, nutrients (nitrate/nitrite), dissolved oxygen, pathogen indicators, and phosphorus. To date no TMDLs have been completed for this waterbody.

Suspected causes of concern are addressed in a manner consistent with the Department's permitting guidance for implementing Louisiana's surface water quality standards as follows:

Dissolved oxygen

Biochemical oxygen demand (or BOD) is the amount of oxygen required by microorganisms to oxidize biologically degradable material (normally organic matter) found in wastewater, effluents, and polluted waters. The test measures the amount of oxygen consumed by a sample by naturally occurring bacteria over a five-day period. Therefore, to protect against potential discharges resulting in DO levels below that of state water quality standards for the receiving waterbody, CBOD₅ limits have been placed in the permit. Monitoring for biological oxygen demand is the best indicator by which to measure the potential discharge of oxygen consuming pollutants at levels that will result in dissolved oxygen below that of state water quality standards. (Because ammonia nitrogen limits have also been placed in the permit, CBOD₅ has been substituted for BOD₅. This inhibits biological activity associated with nitrogen and prevents overestimate of oxygen demand.)

In addition to monitoring for CBOD₅, dissolved oxygen is also limited in the permit. This is an instantaneous minimum to ensure the discharge will not create or contribute to oxygen levels below State standards in the receiving waterbody.

Ammonia and nutrients

Nitrate/nitrite and phosphorus are considered nutrients. Nutrients consume dissolved oxygen in the receiving stream making it less available for aquatic life. This Office utilizes ammonia-nitrogen as an indicator by which to monitor for the potential presence of nutrients remaining in a waste stream after the treatment process. To protect against the discharge of nutrients into the receiving waterbody at levels which exceed state water quality standards, ammonia-nitrogen limits have been placed in the permit.

Mo-Dad Utilities, LLC
Livingston Trace Subdivision
LA0123439; AI 147233; PER20070001
Page 3

Pathogen Indicators

Monitoring for fecal coliform is the best indicator for the potential presence of pathogenic organisms in wastewater. To protect against potential receiving water impairments due to pathogens, fecal coliform limits have been established in the permit.

Mercury

The source of mercury in other TMDLs has been identified as atmospheric deposition. Since the discharge is not directly into the mercury impaired waterbody, no limit or mercury prevention program plan has been included in the draft permit. Should the TMDL for mercury determine a mercury effluent limitation is necessary; a reopener clause has been included in the draft permit.

VI. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 040305 of the Lake Ponchartrain Basin, is listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish & Wildlife Service (FWS) as habitat for the *Gulf sturgeon* which is listed as a threatened/endangered species. This strategy was submitted with a letter dated October 24, 2007 from Boggs (FWS) to Brown (LDEQ). A copy of the draft permit has been submitted to the FWS for review.

VII. HISTORIC SITES:

LDEQ has consulted with the State Historic Preservation Officer (SHPO) in a letter dated August 1, 2007, to determine whether construction-related activities could potentially affect sites or properties on or eligible for listing on the National Register of Historic Places. However, no response from the SHPO was received. In accordance with the Memorandum of Understanding, the SHPO shall have 30 days after receipt of the application to provide comments on the development of a permit for the discharge. If no comments are received by the LDEQ within the 30-day comment period, the LDEQ may consider that the SHPO has waived the right to provide comments, and the LDEQ may proceed with the permitting action.

VIII. PUBLIC NOTICE:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit modification and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List

For additional information, contact:

Ms. Angela Marse
Permits Division
Department of Environmental Quality
Office of Environmental Services
P. O. Box 4313
Baton Rouge, Louisiana 70821-4313

Mo-Dad Utilities, LLC
 Livingston Trace Subdivision
LA0123439; AI 147233; PER20070001
 Page 4

IX. PROPOSED PERMIT LIMITS:

Final Effluent Limits:

OUTFALL 001

The facility is a new discharger into an impaired stream not meeting all of its designated uses. New or expanding discharges should have appropriate effluent limitations that prevent impact on the impaired stream. According to LDEQ's Pre-TMDL Permitting Strategy (December, 2003), this Office will issue permits that 1.) maintain water quality of impaired streams and 2.) include a reopener clause in the permit to allow for more stringent limits if necessary. Maintaining water quality at existing levels means there will not be any additional significant contribution of pollutants to the waterbody. Thus, new or expanding discharges must have appropriate effluent limitations that prevent any additional impact on the impaired stream. As stated in the letter from Ferguson (EPA) to Region 6 Program Manager dated 1/6/03, a discharger meeting effluent limits of 5mg/l CBOD₅, 2mg/l ammonia-nitrogen, and 5 mg/l dissolved oxygen would not cause or contribute to existing impairments. Following finalization of the TMDL, the treatment level required by the TMDL could then be implemented. Therefore, a reopener statement has been included in the permit. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. With the exception of TSS, these effluent limits are proposed in the permit due to the impairments of subsegment 040305 discussed in Section V. Receiving Waters. TSS is not a source of impairment for the receiving stream.

A reopener statement has been included in the permit. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL.

Final limits shall become effective on the effective date of the permit and expire on the expiration date of the permit.

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
CBOD ₅	---	5 mg/l	10 mg/l	Best Professional Judgement (BPJ) and LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.
TSS	---	5 mg/l	10 mg/l	BPJ and LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.
Ammonia-Nitrogen	---	2 mg/l	4 mg/l	BPJ and LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.

Mo-Dad Utilities, LLC
 Livingston Trace Subdivision
LA0123439; AI 147233; PER20070001
 Page 5

Effluent Characteristic	Monthly Avg. (lbs./day)	Monthly Avg.	Weekly Avg.	Basis
Dissolved Oxygen	---	5 mg/l min.	N/A	BPJ LDEQ's Pre-TMDL Permitting Strategy (December, 2003), Letter from Ferguson (EPA) to Region 6 Program Managers dated 1/06/03, and water quality impairments of the receiving stream.

- * Concentration limits are used in accordance with LAC 33:IX.2709.F.1.b which states that mass limitations are not necessary when applicable standards and limitations are expressed in other units of measurement. LAC 33:IX.709.B references LAC 33:IX.711 which express BOD₅ and TSS in terms of concentration.
- ** This Dissolved Oxygen limit is the lowest allowable average of daily discharges over a calendar month. When monitoring is conducted, the Dissolved Oxygen shall be analyzed immediately, as per 40 CFR 136.3.

Other Effluent Limitations:

1) Fecal Coliform

The discharge from this facility is into a water body which has a designated use of Primary Contact Recreation. According to LAC 33:IX.1113.C.5.b.i, the fecal coliform standards for this water body are 200/100 ml and 400/100 ml. Therefore, the limits of 200/100 ml (Monthly Average) and 400/100 ml (Weekly Average) are proposed as Fecal Coliform limits in the permit. These limits are being proposed through Best Professional Judgement in order to ensure that the water body standards are not exceeded, and due to the fact that existing facilities have demonstrated an ability to comply with these limitations using present available technology.

2) pH

The pH shall not be less than 6.0 standard units nor greater than 9.0 standard units at any time. (Limits as established through BPJ considering BCT for similar waste streams in accordance with LAC 33:IX.5905.C.)

3) Solids and Foam

There shall be no discharge of floating solids or visible foam in other than trace amounts in accordance with LAC 33:IX.1113.B.7.

X. PREVIOUS PERMITS:

This is a new facility; therefore, there are no previous permits.

XI. ENFORCEMENT AND SURVEILLANCE ACTIONS:

A) Inspections

There are no inspections on file for this facility.

Mo-Dad Utilities, LLC
 Livingston Trace Subdivision
LA0123439; AI 147233; PER20070001
 Page 6

B) Compliance and/or Administrative Orders

A review of the files indicates that there are no OEC enforcement actions administered against this facility.

C) DMR Review

This is a new facility; therefore, there are no DMRs on file.

XII. ADDITIONAL INFORMATION:

Please be aware that the Department will be conducting a TMDL in the Lake Pontchartrain Basin scheduled for completion in 2011. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions as a result of the TMDL. Therefore, prior to upgrading or expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

At present, the **Monitoring Requirements, Sample Types, and Frequency of Sampling** as shown in the permit are standard for facilities of flows between 0.02 and 0.10 MGD.

<u>Effluent Characteristics</u>	<u>Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	1/week	Measure
CBOD ₅	1/month	Grab
Total Suspended Solids	1/month	Grab
Ammonia-Nitrogen	1/month	Grab
Dissolved Oxygen	1/month	Grab
Fecal Coliform Bacteria	1/month	Grab
pH	1/month	Grab

XIII TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to issue a new permit for the discharge described in this Statement of Basis.

XIV REFERENCES:

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 8, "Wasteload Allocations / Total Maximum Daily Loads and Effluent Limitations Policy," Louisiana Department of Environmental Quality, 2005.

Louisiana Water Quality Management Plan / Continuing Planning Process, Vol. 5, "Water Quality Inventory Section 305(b) Report," Louisiana Department of Environmental Quality, 1998.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Chapter 11 - "Louisiana Surface Water Quality Standards," Louisiana Department of Environmental Quality, 2004.

Louisiana Administrative Code, Title 33 - Environmental Quality, Part IX - Water Quality Regulations, Subpart 2 - "The LPDES Program," Louisiana Department of Environmental Quality, 2004.

Low-Flow Characteristics of Louisiana Streams, Water Resources Technical Report No. 22, United States Department of the Interior, Geological Survey, 1980.

Mo-Dad Utilities, LLC
Livingston Trace Subdivision
LA0123439; AI 147233; PER20070001
Page 7

Index to Surface Water Data in Louisiana, Water Resources Basic Records Report No. 17, United States Department of the Interior, Geological Survey, 1989.

LPDES Permit Application to Discharge Wastewater, Mo-Dad Utilities, LLC, Livingston Trace Subdivision, July 27, 2007.